

REMARKS

Response to Advisory Action

In an Advisory Action mailed on January 10, 2005, the Examiner characterized surface mount connector **5** of Takase et al., US Patent No. 6,261,107 (henceforth, “Takase et al. ‘107”) as a “peripheral device”. Attached please find a definition of “peripheral” dated June 2, 2003. According to this definition, a peripheral device is “optional in nature, as opposed to hardware that is either demanded, or always required in principle”. Connector **5** of Takase et al. ‘107 clearly does not fit this definition. Connector **5** is an integral part of circuit board **2** and as such is certainly not optional. Column 3 line 47 of Takase et al. ‘107 describes connector **5** as “mounted to” circuit board **2**. Column 3 line 50 of Takase et al. ‘107 describes two connectors **5** as “attached to opposite surfaces of” circuit board **2**. Column 4 lines 62-67 of Takase et al. ‘107 states:

The solder tail portions **11** are aligned in opposition to conductive pads...formed on the surface of circuit board **2**. The solder tail portions **11** and the conductive pads are then surface soldered by any desirable manner of soldering...in order to fix the connector **5** to the circuit board **2**. (emphasis added)

In the same Advisory Action, the Examiner also characterized engagement portion **14** of connector **6** of Takase et al. ‘107 as facing inward, not downward, because engagement portion faces “to at least one inner point of the system board”. It is clear from the specification of the above-identified patent application that this is not the meaning of “inward” as that word is used in the above-identified patent application. Connector **70** of the present invention is illustrated in Figures 3A, 3B and 4. Figure 4 shows connector **70**, as illustrated in Figure 3A, mounted on system board **80**. Outward-facing USB port **72** clearly does not face towards system board **80**.

Figure 3B shows that inward-facing USB port **74** is on the opposite side of connector **70** from outward-facing USB port **72**, facing in the opposite direction from outward-facing USB port **72**. It follows that inward-facing USB port **72** does not face towards system board **80** either.

New Claims

To further distinguish the present invention from the prior art cited by the Examiner, new claims 14-18 have been added.

New claim 14 states that the second port faces inward to accommodate a peripheral device that is electrically connected to the system board only via the second port. This is in contrast to housing engagement portion **14** of Takase et al. '107 that accommodates connector **5**. In addition to being electrically connected to connector **6** via housing engagement portion **14**, surface mount connector **5** is directly electrically connected to circuit board **2**, as is clear from Takase et al. '107 column 3 lines 33-38:

The surface mount connectors of the present invention are particularly suitable for providing a connection between circuits on a circuit board **2** and a series of wires enclosed in a cable **3** and terminated to a wire connector, such as the I/O style connector **4** illustrated.

and from Takase et al. '107 column 4 lines 62-67, that describe solder tails **11** of terminals **8** of connector **5** as follows:

The solder tail portions **11** are aligned in opposition to conductive pads (not shown) formed on the surface of the circuit board **2**. The solder tail portions **11** and the conductive pads are then surface soldered by any desirable manner of soldering...in order to fix the connector **5** to the circuit board **2**.

New claim **14** is supported by Figure 5 that shows flash memory **90** plugged into inward-facing USB port **74** and connected electrically to system board **80** only via inward-facing USB port **74**.

New claim 15 states that the two ports face in respective directions that are parallel to the system board. This is in contrast to engagement portions **14** and **15** of Takase et al. '107. Engagement portion **15** faces parallel to circuit board **2** but engagement portion **14** faces perpendicular to circuit board **2**. New claim 15 is supported by Figures 3A, 3B and 4. Figure 4 shows outward-facing USB port **72** facing parallel to system board **80**. Figures 3A and 3B show that inward-facing USB port **74** is on the opposite side of connector **70** from outward-facing USB port **72**, so that inward-facing USB port **74** necessarily faces parallel to system board **80**.

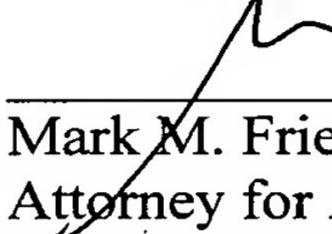
New claim 16 states that the two ports face in opposite directions. This is in contrast to engagement portions **14** and **15** of Takase et al. '107 that face in perpendicular directions. New claim 16 is supported by Figures 3A and 3B that show USB ports **72** and **74** facing in opposite directions.

New claim 17 states that the connector's mechanism for attachment to the system board is separate from the ports. This is in contrast to engagement portion **14** of Takase et al. '107 that also attaches connector **6** to circuit board **2**. New claim 17 is supported by Figures 3A and 3B that show pins **56**, which are the mechanism for attaching connector **70** to system board **80**, as separate from USB ports **72** and **74**.

New claim 18 states that the peripheral device of claim 7 is electrically connected to the system board only via the inward-facing port. This is in contrast to connector **5** of Takase et al. '107 that, as noted above, in addition to being electrically connected to connector **6**, also is directly electrically connected to circuit board **2**. New claim 18 is supported by Figure 5 that shows flash disk **90** connected electrically to system board **80** only via inward-facing USB port **74**.

In view of the above amendments and remarks it is respectfully submitted that independent claim 1, and hence dependent claims 3, 4, 7-10 and 14-18 are in condition for allowance. Prompt notice of allowance is respectfully and earnestly solicited.

Respectfully submitted,



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Peripheral

From Wikipedia, the free encyclopedia.

Revision as of 09:36, 2 Jun 2003; view current revision

←Older revision | Newer revision→

A **peripheral** is a type of computer hardware that is added to the computer, in order to expand its abilities. More specifically the term is used to describe those devices that are optional in nature, as opposed to hardware that is either demanded, or always required in principle. The term also tends to be applied to devices that are hooked up externally, typically through some form of computer bus like USB.

Typical examples include joysticks, printers and scanners. Devices such as monitors and disk drives are not considered peripherals because they are not truly optional, and video capture cards are typically not referred to as peripheral because they are internal devices.

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